AMENDMENT UNDER 37 C.F.R. § 1.111 U.S. Application Number 09/831,040

voltage regulating means for regulating a current, which is caused to flow through said field coil, on the basis of the detection result of a voltage developed across the terminals of said batteries due to an output voltage of said A.C. generator into a fixed output value of the generation of electrical energy of said A.C. generator; and

field current restricting means for detecting a current which is caused to flow through said field coil by means of a field current detecting resistor to restrict the current to a predetermined value in correspondence to the detection result,

wherein said field current detecting resistor is a thick film printed resistor, and

wherein each of said means other than said thick film printed resistor is an electronic circuit and the electronic circuits are configured in the form of an integrated circuit.

4. (Amended) A controller for an A.C. generator for a vehicle according to claim 1, further comprising a failure alarm means for detecting a failure of said A.C. generator to give an alarm, wherein the failure alarm means is an integrated circuit.